Management of Skin and Soft Tissue Infections | An algorithm for antimicrobial selection

Assess Severity

Mild	**Moderate	**Severe
Local signs only. No systemic features Immunocompetent.	More extensive erythema Systemic features present No sepsis	Rapidly progressive infection Sepsis present Necrotising signs

**Moderate and Severe Skin and Soft Tissue Infections Needs Admission for In-ward Treatment

(Mild) Out Patient Management*

PO Flucloxacillin 1g 6H
OR
PO Cefalexin 500mg 6H
x 5 to 7 Days
(Can extend upto 10 days if symptoms do not resolve)

Moderate**

IV Flucloxacillin 1-2g 6H
x 7 -10 Days
+/-
PO Clindamycin 450mg 8H
(with significant clinical resolution, discontinue clindamycin)

*Decision to be admitted or not must be supplemented by clinical judgement, and major physiological parameters

Indications for Surgical Referral

Abscess formation
Features of Necrotising Fascitis

Samples (Blood, Blister fluid, Swabs) for Culture to be taken prior to commencing antibiotics

Severe**

Rapidly progressing cellulitis with no features of sepsis

IV Flucloxacilling 2g 6H
OR
Co-amoxicalv 1.2g IV 8H
+
Clindamycin 600mg-900mg IV 8H

Actively examine for Abscess formation

Deteriorating patient with Progressive Hypotension, Altered mental status, Hypoxia, Worsening tachycardia, Tachypnoea, Respiratory distress (i.e. Evidence of Shock)

IV Piperacillin-tazobactam 4.5g 6-8H
(IV Infusion) OR
Meropenam 1g 8H (IV Infusion)
+
Clindamycin 600mg-900mg IV 8H
+/-
IV Gentamicin 5mg/kg (one dose)

Necrotising skin and soft tissue infection***

Immediate surgical debridement with Blood & deep tissue for culture

Is the infection monomicrobial or polymicrobial?

Monomicrobial

Caused by **group A streptococci / Chlostridium spp**
Any age group even without co-morbidities

IV Flucloxacilling 2g 6H
OR
Co-amoxicalv 1.2g IV 8H
+
Clindamycin 600mg-900mg IV 8H
(Usually 7 days of IV + Oral antibiotics is sufficient after achieving full debridement)

Polymicrobial

Caused by aerobic & anaerobic bacteria
Older adults with underlying co-morbidities

IV Piperacillin-tazobactam 4.5g 6-8H
(IV Infusion) OR
IV Meropenem 1g 8H (IV Infusion)
+
Clindamycin 600mg-900mg IV 8H
+/-
IV Vancomycin 1g 12H
(Usually 7 days of IV + Oral antibiotics is sufficient after achieving full debridement)

*****Features of Necrotising Fascitis**

- Rapidly progressing cellulitis
- Disproportionately Severe pain
- Skin bullae, necrosis or ecchymosis
- Skin color from red-purple to patches of blue-grey
- Crepitus
- Development of anesthesia may precede the appearance of skin necrosis- may have disproportionately less pain
- Some May not have fever
- Elevated CPK, lactate & AST levels

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